

```
<!ELEMENT ServiceComplato public key, (storage_id_info)*, (clament_service)+,
   (storage_info)">
<!ELEMENT public_key EMPTY>
<!ELEMENT element_service (content_group)+,(storage_id_info)*>
<!ELEMENT content_group (storage_id_info)">
<!ELEMENT storage_id_info EMPTY>
<!ELEMENT storage_info (ird_level_list)>>
<!ELEMENT ird_level_list (storage_id_list)">
< ATTIJST ServiceCompleto
                          PCDATA #REQUIRED
mo_majur_version
                          PCDATA #REQUIRED
info_minor_version
                          ID_NUM #REQUIRED
information_providor_id
information_provider_name CDATA #REQUIRED
information_provider_char
                          CDATA #REQUIRED
work_area_size
                          PCDATA #REQUIRED
first_bml
                          ID_NUM #REQUIRED
<'ATTLIST public key
                    PCDATA #REQUIRED
version
                    PCDATA #REQUIRED
key
limit
                    DATE #REQUIRED
<!ATTLIST elament_service
                    ID_NUM #REQUIRED
elemen:_service_id
element_service_name CDATA # IMPLIED
                             # IMPLIED
element_service_char CDATA
Und Thill
                     ID_NUM #IMPLIED
                     (ONJOFF) OFF
schedulajnia
<'ATTLIST content_group
content_group_id
                     ID_NUM #REQUIRED
                     CDATA
                              #REQUIRED
content_group_name
                     CDATA
                              #REQUIRED
content_group char
                     ID_NUM #IMPLIED
firat_bml
<'ATTLIST storage_id_info
sturage_id
              ID_NUM
                             #REQUIRED
<'ATTLIST ind_level_list
                     PCDATA #REQUIRED
udlevel
< 'ATTLIST storage jd liet
storage_id
                     ID_NUM
                                  #REQUIRED
                     (011121814) 0
storage_policy
                     PCDATA #REQUIRED
exclusive_sw:age_av
exclusive_atorage_data PCDATA #REQUIRED
```

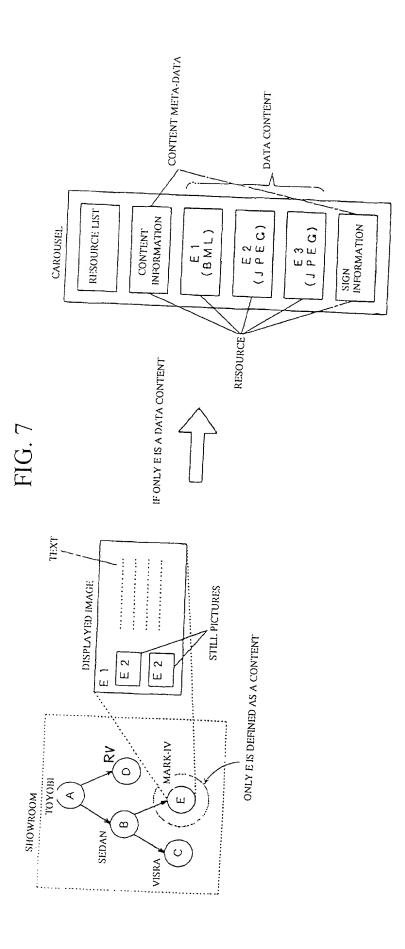
```
<!ELEMENT ScheduleInfo (content_info)*, (next_schedule)*>
<!ELEMENT content_info (schedule)+, (filtering_pattern)+>
<!ELEMENT schedulc_list (schedule)+>
<!ELEMENT next_schedule (schedule)+>
<!ATTLIST ScheduleInfo
info_major_version
                           PCDATA #REQUIRED
                           PCDATA #REQUIRED
info_minor_version
information_provider_id ID_NUM
                                  #REQUIRED
element_service_id
                     ID_NUM
                                  #REQUIRED
<!ATTLIST content_info
                     ID_NUM
                                  #REQUIRED
element_content_id
content_major_version
                             PCDATA #REQUIRED
                             PCDATA #REQUIRED
content_minor_version
data_type
                   (STREAM | FILE) #IMPLIED
content_size
                   CDATA
                             #IMPLIED
<!ATTLIST schedule_list
                     ID_NUM
                                  #REQUIRED
transport_stream_id
original_network_id
                     ID_NUM
                                  #REQUIRED
service_id
                     ID_NUM
                                  #REQUIRED
<!ATTLIST schedule
                           #REQUIRED
start_time
                 DATE
duration
                 PCDATA #REQUIRED
>
<!ATTLIST filtering_pattern
layer
                 (112)
                           #REQUIRED
def_version
                 PCDATA #REQUIRED
FieldID
                 JD_NUM #REQUIRED
info_version
                 PCDATA #REQUIRED
pattern
                 CDATA
                           #REQUIRED
<!ATTLIST next_schedule
transport_stream_id
                     ID_NUM
                                   #REQUIRED
original_network_id
                     ID NUM
                                   #REQUIRED
service_id
                     ID_NUM
                                   #REQUIRED
```

COMMON CONTENT INFORMATION

```
<!ELEMENT Commonlato (comp_info+)>
   <!ELEMENT comp_info (comp_content+)>
   <!ELEMENT comp_content EMPTY>
   <!ATTLIST CommonInfo
   information_provider_id ID_NUM #REQUIRED
  service_type
                   (0|1|2|3|4) #REQUIRED
  element_service_id
                      ID_NUM #REQUIRED
  content_group_id
                      ID_NUM #REQUIRED
  storage_id
                      ID_NUM #IMPLIED
  major_version
                    PCDATA
                               #REQUIRED
  minor_version
                    PCDATA
                               #REQUIRED
 activation_time
                    DATE
                               #IMPLIED
 expire_time
                    DATE
                               #REQUIRED
 expire_policy
                    (0/1)
 <!ATTLIST comp_info
ird level
                 PCDATA
                              #REQUIRED
limit
                   DATE
                              #REQUIRED
<!ATTLIST comp_content
element_content_id
                  ID_NUM
                             #REQUIRED
nccessary
                  (ONJOFF) OFF
```

PRIVATE CONTENT INFORMATION

```
<!ELEMENT PrivateInfo (ird_lovel_list)* (filtering_pattern)* >
 <!ELEMENT ird_level_list (ird_level_info)+>
 <!ELEMENT ird_level_info EMPTY>
 <!ATTLIST PrivateInfo
 element_content_id
                   ID_NUM #REQUIRED
 content_major_version PCDATA #REQUIRED
 content_minor_version PCDATA #REQUIRED
 first_bml_flag
                        (yes|no) no
 activation_time
                    DATE
                              # IMPLIED
 expire_time
                     DATE
                              #IMPLIED
 expire_policy
                    (0 | 1) 0
data_type
                    (STREAM|FILE) #IMPLIED
content_size
                    CDATA
                              #IMPLIED
<! ATTLIST ird level info
ird_level
                    PCDATA#REQUIRED
>
<!ATTLIST filtering_pattern
filter_type
                 (primary | secondary)
                                       #REQUIRED
def_version
                 PCDATA #REQUIRED
FieldID
                 ID_NUM #REQUIRED
info_version
                 PCDATA #REQUIRED
pattern
                 CDATA
                           #REQUIRED
```



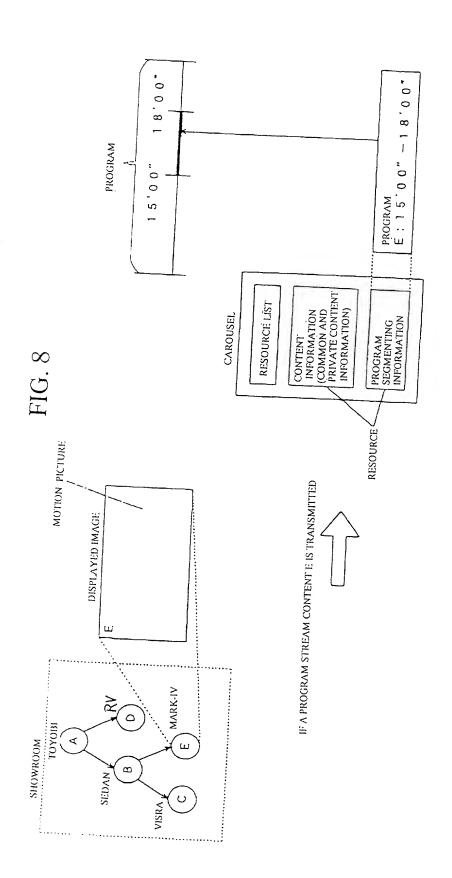


FIG. 9

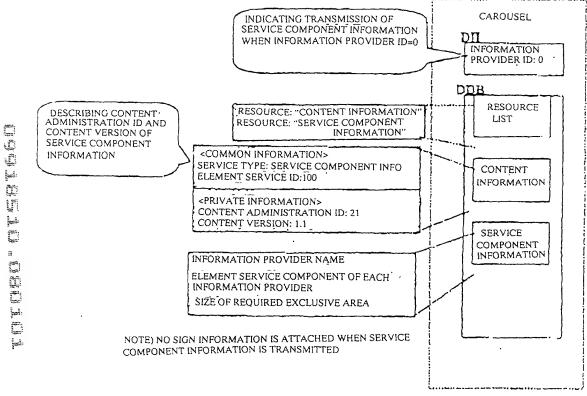
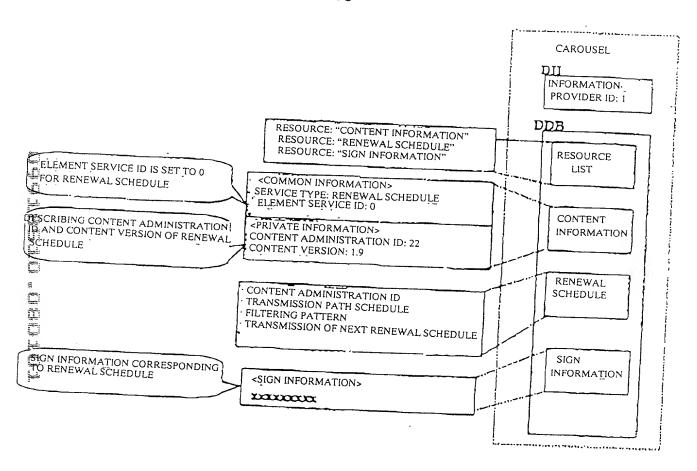


FIG. 10



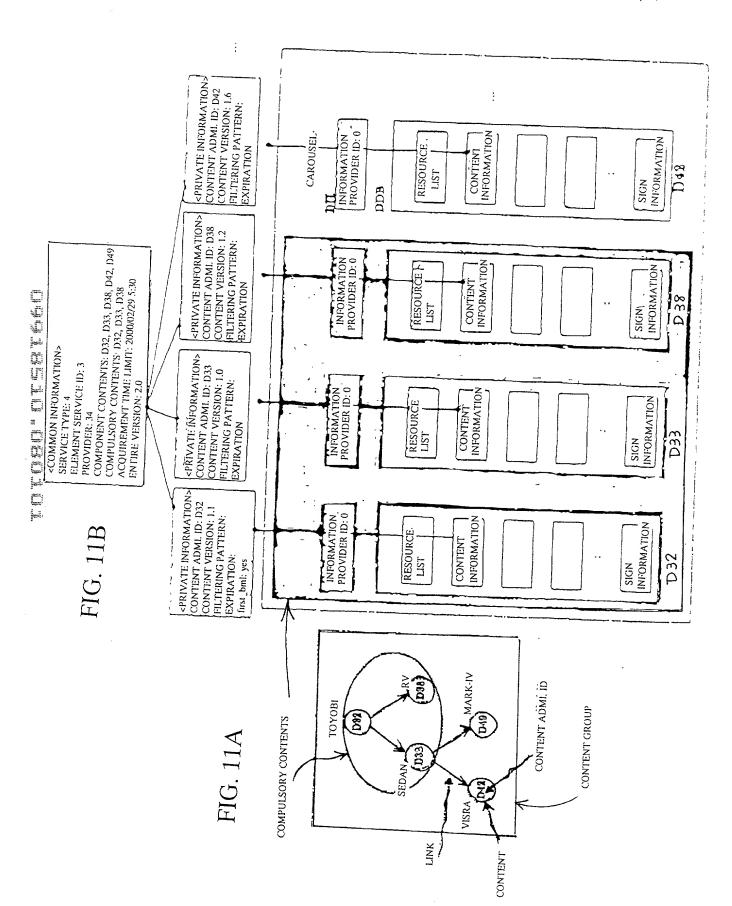


FIG. 12

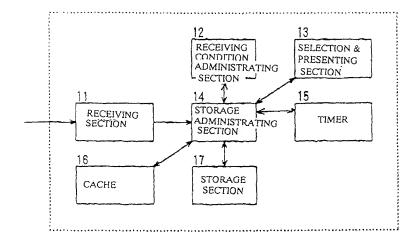


FIG. 16

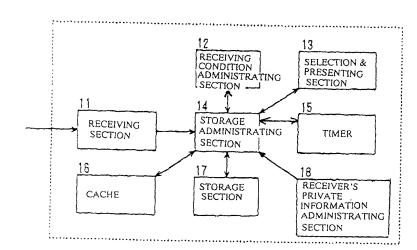
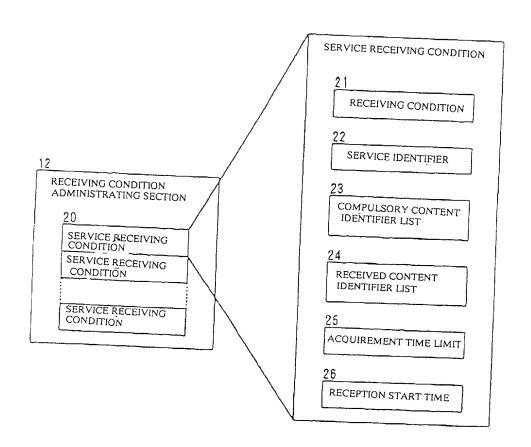


FIG. 13



SIGN INFORMATION

SIGN. INFORMATION

ò

FIG. 14B

FIG. 14A

<PRIVATE INFORMATION>
CONTENT ADMI. ID: F
fillering_pattern:
EXPIRATION: CAROUSEL RESOURCE LIST INFORMATION first_bml:no CONTENT FIG. 14C <PRIVATE INFORMATION>
CONTENT ADMI. ID: D
f / I ter i ng_pattern:
EXPIRATION. CAROUSEL CONTENT RESOURCE LIST first_bml:no ī 9 Þ Ш В Ų ٥ ⋖ E Θ Ç

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Ç

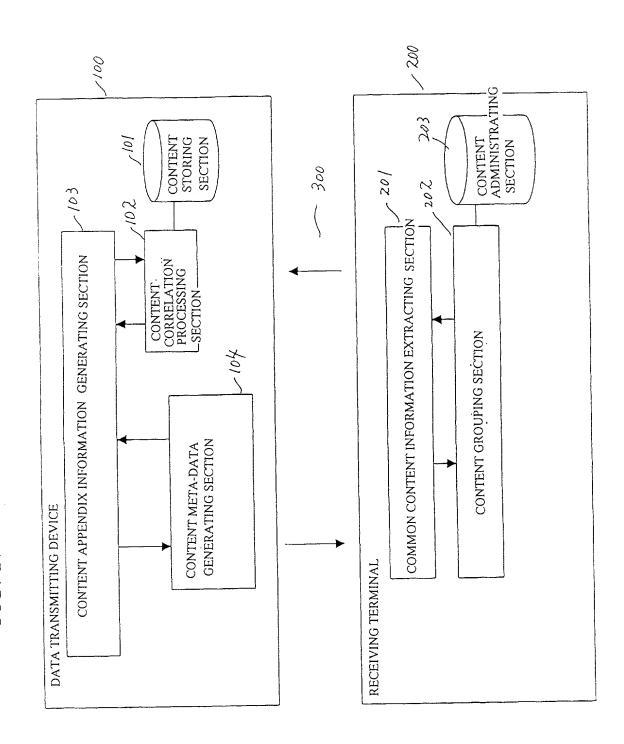
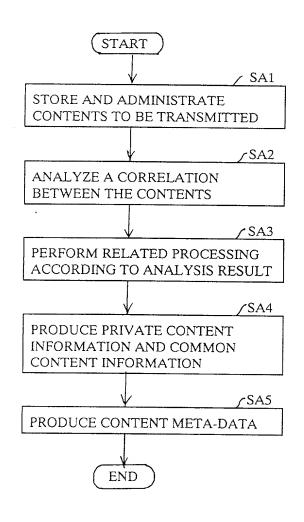


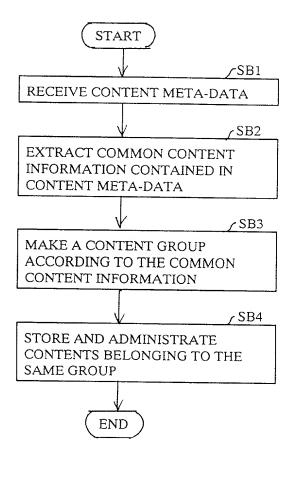
FIG. 18A

FIG. 18B

DATA TRANSMITTING OPERATION



DATA RECEIVING OPERATION



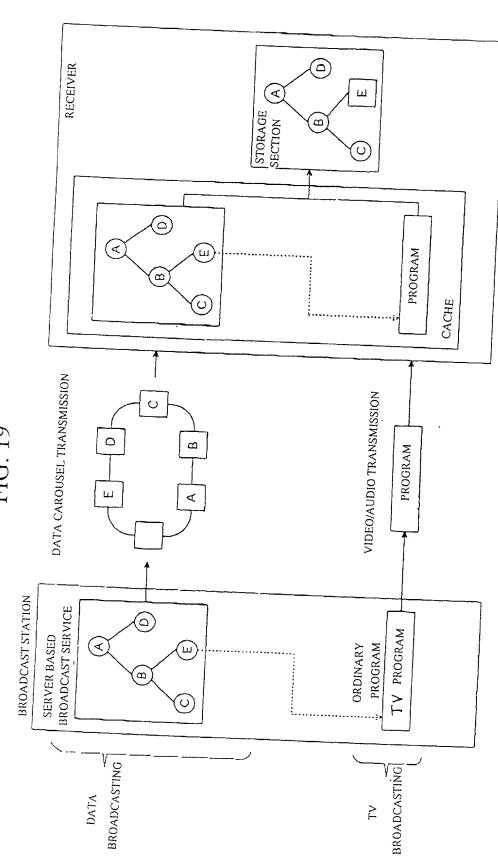


FIG. 20A

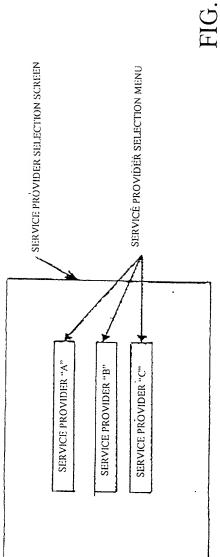


FIG. 20B

SERVER BASED BROADCAST SERVICE SCREEN FOR SERVICE PROVIDER "A"

